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Veröffentlichungsversion / Published Version
Zeitschriftenartikel / journal article

Empfohlene Zitierung / Suggested Citation:

Giannopoulos, A., Skourtis, G., Kalliga, A., Dontas-Chrysis, D.-M., & Paschalidis, D. (2020). Co-creating high-value hospitality services in the tourism ecosystem: Towards a paradigm shift? *Journal of Tourism, Heritage & Services Marketing*, 6(1), 3-11. <https://doi.org/10.5281/zenodo.3822065>

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Co-creating high-value hospitality services in the tourism ecosystem: Towards a paradigm shift?

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Abstract

Purpose: Adopting the service-ecosystem perspective, this is the first empirical study conceptualising tourism as an ecosystem. Based on the institutional theory and focusing on high-value hospitality services, it aims to unveil the components of the multilayer tourism ecosystem that enable stakeholders' interactions at and between different levels.

Methods: Applying a qualitative research design in Rhodes, the study focuses on value co-creation to explore the structure of the tourism ecosystem and its underlying mechanisms. Triangulation and bracketing were employed to ensure the reliability of the data collected through ten semi-structured interviews with high-ranking tourism policy-makers and hotel/restaurant managers.

Results: The results led to the identification of the three-level service ecosystem (micro, meso, macro) that incorporates myriads of actions and interactions shaping tourism activity in order to provide high-value hospitality services. The analysis also revealed the institutional logic that permeates all levels (rules, norms, practices, meanings and symbols).

Implications: The study goes beyond the destination-visitor and firm-guest interactions to incorporate multiple stakeholders co-creating value in the tourism ecosystem, including tourists, locals and employees, hotels and restaurants, DMOs and other organisations supporting the tourism value chain. It sheds light on the new paradigm shift from the notion of tourism industry to the concept of an inclusive tourism ecosystem, paving the way for future research to address global challenges in the COVID-19 era.

Keywords: tourism marketing, hospitality services, institutional theory, service ecosystem, value co-creation

JEL Classification: L83, L8, Q57

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1 INTRODUCTION

In times of uncertainty, global competition poses new challenges for the hospitality and tourism industry (e.g. travel commoditisation, sharing economy, digital nomads, global

clans, overcrowding, severe sustainability concerns from 'generation Greta', age shift and global health system, neutralisation and de-densification in aviation in the COVID-19 era). The tourism value chain is largely susceptible to changes in the external environment due to the close interdependence between various companies and



organisations either directly or indirectly related to tourism. Significant technological advancements have also affected the tourism industry (Cabbidu et al., 2013). From digital immigrants to digital natives, technological disruptions have significantly supported innovation processes by changing the way people search, read, share and discuss information (Sigala & Chalkiti, 2015). Through the use of social media, tourists have become more aware of the power they have and they have become more active in the development and successfully delivery of hospitality services, as active participants in the whole process (Buhalis & Foerste, 2015; Neuhofer et al., 2015; Buhalis et al., 2019).

To this end, technology acts as a catalyst for tourists to get involved with other actors in the tourism sector (Chatzigeorgiou & Christou, 2020), and as a result, together they co-create value. The Service-Dominant Logic (S-D logic) considers the role of the customers in value co-creation (Grönroos, 2006; Lusch & Vargo, 2006; Vargo & Lusch, 2008). It suggests that, in the process of value co-creation, tourists, tourism businesses and organisations all act as resource integrators (Dabholkar, 1990; Holbrook, 1996, 2006; Arnould et al., 2006). The study tries to uncover the dynamics between the actors of the tourism ecosystem, drawing on institutional theory (Scott, 2005). Through the lens of this theory, various underlying mechanisms (i.e. regulative, normative and cultural cognitive elements) stimulate or undercut processes and interlinkages within the ecosystem (e.g. coervice, normative and mimetic) fostering institutional logics at various levels of analysis (Scott, 2008). This study closes a significant research gap since it is first to conduct empirical research on the service ecosystem in the tourism sector, incorporating institutional theory. The research delves into the tourism ecosystem, identifies the actors involved and their relationships within the ecosystem, analysing the case of Rhodes in the Region of South Aegean that dominates the seasonal nature of the tourism product and lifts great weight of inbound tourism in Greece (Papatheodorou & Arvanitis, 2014). In the first part of the paper, the theory of S-D Logic and service ecosystems as well as the institutional theory and institutions are critically reviewed. In the second part, the qualitative methodology, including in-depth interviews, is delineated to provide particular insight into the way the tourism ecosystem is structured encompassing various actors, different roles, norms and activities all with the intent purpose of delivering high-value hospitality services. Based on the findings, theoretical and practical implications are discussed and new areas for future research are unveiled in an ever-evolving tourism ecosystem.

2 SERVICE-DOMINANT LOGIC AND SERVICE ECOSYSTEM

According to Maglio and Spohrer (2008: 18), “S-D logic may be the philosophical foundation for service science, and the service system may be its basic theoretical construct”. Value gets co-created when resources are integrated and used by actors, in a specific context and with an intention to meet the realised value in context (Vargo & Lusch, 2008). A proliferation of definitions of value co-creation have been cited throughout the years such as the creation of value in use

(Grönroos, 2008) or the integration of resources through interactions with the constituent parties of the service network (McColl-Kennedy et al., 2012). Prahalad and Ramaswamy (2004) denoted that experience instigates value co-creation, incorporating multiple parties beyond the service provider-customer dyad with customers considered as unique arbiters of value (Vargo et al., 2008). Indeed, the resource integration takes place in a constellation of exchanges, actions and interactions within service systems and networks (Vargo et al., 2008). The S-D Logic constitutes a metatheoretical framework for understanding value co-creation through resource integration and service exchange in various disciplines and contexts (Black & Veloutsou, 2017; Kennedy E. & Guzmán, 2017; Simmonds et al., 2018; Assiouras et al., 2019).

In line with the S-D logic, services unfold as the application of resources for the benefit of others – as a common denominator of economic (and non-economic) exchange; thus, value is co-created (i.e. not delivered). In discussing these resources, Vargo and Morgan (2005) stressed the primary role of operant resources that can act on other resources to create a benefit, rather than the role of the relatively static, operand resources, which are more commonly considered. Likewise, value co-creation has been examined in the tourism context (e.g. Prebensen & Foss, 2011; Grisseemann & Stokburger-Sauer, 2012; Cabiddu et al., 2013; Sfantla & Björk, 2013; Mathis et al., 2016).

According to Van Riel (2015: 199), “service is not to be considered, studied, managed, as a discrete phenomenon, but rather as something that is part of a system, of a network, linking departments in the firm, multiple firms and customers in an ecosystem”. In the same vein, a service ecosystem is defined as “a relatively self – contained, self – adjusting system of resource – integrating actors connected by shared institutional arrangements and mutual value creation through service exchange” (Vargo & Lusch 2016: 11-12). Service ecosystems are rather complicated in nature, encompassing numerous actors, various forces social forces and resource integration activities (Akaka & Vargo, 2015) that can be identified at various levels (Beirao et al., 2016). In more detail, the service ecosystem perspective engenders various interactions among and between multiple actors at and between three inter-related levels, namely the micro, meso and macro-level (Akaka & Vargo, 2015; Fisk et al., 2016; Witell et al., 2015). Yet, the concept of service ecosystem in the tourism context is still in its infancy (e.g. Barile et al., 2017).

In the tourism setting, actors (i.e. stakeholders) operate in the service ecosystem permeating multiple networks (e.g. tourists, hotels, destinations); the destination complexity derives from the variation of the actors’ roles and is thereby related to the available resources and the relationships nurturing in a specific context (Akaka & Chandler, 2011). Provided that actors’ roles and interrelationships are not static, the levels of the ecosystem dynamically change (Chandler & Vargo 2011; Edvardsson et al., 2011). In line with the work of Akaka and Vargo (2015: 459), macro-level does not exist without micro and macro-level and vice versa. The service ecosystem approach emphasises the way micro-level interactions engender the macro and meso-level contexts. At the micro-level, dyadic interactions (Yilmaz,

2018) set the platform for the integration of resources (e.g. tourists and front-line hospitality employees) as well as the value that stems from the specific interaction (Chandler & Vargo, 2011). Hence, each micro-level interaction is nested within a broader-level setting (Chandler & Vargo 2011) e.g. destination at a regional or national level.

In this context, destination management organisations should try to create opportunities for multiple touchpoints between the visitors and the destination brand (Chatzigeorgiou & Christou, 2016). In fact, the service ecosystem approach emphasises the idea that market interactions occur throughout networks of firms, customers, and other stakeholders and are governed by “institutions” (Williamson, 2000). However, the so-called “institutions” spur actions and interactions (Giddens, 1984), and the service ecosystems are built on the platform of iterative actions, reproduced relationships and shared meanings.

3 INSTITUTIONAL THEORY AND INSTITUTIONS

According to North (1990: 70), institutions are “sets of rules governing interpersonal relations”; they can be considered as the game rules, which may pose limitations, but also shape mutual societal interactions (North, 1993). Previous research drew attention to the proliferation of institutional arrangements challenging the actors in a service ecosystem, where institutions pertain to “rules, norms, meanings, symbols, practices and similar aides to collaboration” (i.e., Vargo & Lusch 2016: 6). Institutions are viewed as the mechanism that somehow connects the different actors. The extant institutional theory tends to assign to norms, rules, meanings, symbols and practices the status of “the rules of the game” (Vargo & Akaka 2012; Vargo et al., 2015).

“Humans create institutions to coordinate their behaviours and free up time that otherwise would be dedicated to finding ways to coordinate” (Barile et. al., 2016: 665). Institutions represent the humanly devised resources (Simon, 1996) that are continually reproduced to engender the structural properties formulating the social context (Chandler & Vargo, 2011; Edvardsson et al. 2011). This process is essential for the deeper comprehension of the co-creation of value. Being crucial elements in shaping economic and social processes, institutions guide actors’ actions and interactions and value co-creation processes (Edvardsson et al., 2014).

Following this rationale, institutions pertain to any rules, norms, and beliefs that encourage or prevent actions, interactions adding meaning to social life (North, 1990; Scott, 2005, 2008). The sets of interrelated institutions stimulate institutional arrangements; this process of “institutionalisation” provides further insight into the structure and functions of service ecosystems. With the addition of institutions and service ecosystems to the foundational concepts of the S-D logic (Vargo & Lusch, 2017), a relatively coherent narrative of value co-creation is developed through resource integration and service exchange, facilitated by shared institutional arrangements that dictate nested and overlapping service ecosystems. Institutions enable actors to attain a higher level of service exchange and value co-creation under time and cognitive constraints. The more actors share an institution, the greater

the potential coordination benefits to all actors. Thus, institutions play a major role in value co-creation.

In this context, “institutionalisation” refers to the processes by which “social expectations of appropriate organisational form and behavior come to take on a rule-like status in social thought and action” (Martinez & Dacin, 1999: 78). It involves the social process, obligation or actualities with a rule-like status in social thought and action (Scott, 1987). When applied to service ecosystems, this process offers a better comprehension of service ecosystem actors and their interactions.

4 METHODOLOGY

To address the research objectives by revealing the principles of the tourism ecosystem, a qualitative research design was deployed to explore the nature of a constellation of linkages and interlinkages amid tourism key-players and empirically investigate the genesis and development the value co-created with multiple stakeholders. Contributing to the methodological discourse on qualitative methods, the research incorporated in-depth interviews to offer insights into the “why” tourism actors engage in pertinent actions and behaviours.

In order to tap a wide range of different perspectives, the sample included high-ranking representatives from crucial areas of tourism and hospitality services on the Greek island of Rhodes. Apart from the Region of South Aegean, four-star, five-star hotels as well as haute-cuisine restaurants were specially selected, considering their role in the tourism community, covering three major fields in the tourism ecosystem. The actual number (10) of the interviews was examined to ensure that it is an indicator of saturation, not a cause for concern, after consultation between the members of the research team (Ahern, 1999).

In more detail, the authors conducted ten in-depth interviews with key-informants from the Region of South Aegean, the hotel industry and the restaurant sector. Four interviewees officially engaged in destination policy making at regional level (Directorate of Tourism, Region of South Aegean), three hotel managers were selected in accordance with the years of their professional experience and three restaurant managers participated in the research based on their largely acknowledged expertise (Table 1). The respondents were carefully selected to represent critical informants with close ties with regional associations, actively involved in the destination marketing and management activities for the specific destination.

The average duration of the interviews was one hour covering a range between a 27-minute discussion (minimum) and a 1-hour-and-50 minute conversation (maximum). In line with current research ethics, the interviews were audiotaped, assuring anonymity and confidentiality. During the interviews, respondents were encouraged to express their views on the tourism service ecosystem, the institutions and their interrelationships, and eventually how value is co-created in the ecosystem of tourism in Rhodes. To guarantee the consistency and reliability of the research findings, the discussions were based on a carefully developed interview protocol with semi-structured questions (Castillo-Montoya, 2013) referring to the relevant background information, level

of awareness, understanding, knowledge, acts and additional ways of thinking or acting.

Table 1: Profile of the interviewees

Interviewees	Profile			
	Professional Status	Role in the Ecosystem	Field in the Ecosystem	Years of Experience
1	Vice-Governor A	Region of South Aegean	Policy-making	28
2	Vice-Governor B	Region of South Aegean	Policy-making	20
3	Senior Consultant	Region of South Aegean	Policy-making	20
4	Supervisor	Region of South Aegean	Policy-making	7
5	Manager	Hotel sector	Service provider	30
6	Manager	Hotel sector	Service provider	28
7	Manager	Hotel sector	Service provider	29
8	Manager	Restaurant sector	Service provider	34
9	Manager	Restaurant sector	Service provider	12
10	Manager	Restaurant sector	Service provider	25

In more detail, after a short introduction to set the context of the study, simple terms were used to stimulate the discussion on hospitality services, whether and how value emerges in service interactions and how the respective underlying conditions are perceived e.g. imperatives, instructions, facilitating guidelines, symbolic or explanatory elements. After a pilot test with two members of the tourism community (both academics and practitioners), the interview guide was enriched with the respondents' standpoint regarding the position of the organisation/firm they represented against other stakeholders in the tourism value chain.

To further enhance the validity in the data collection and analysis, a combination of server aspects, methods and data resources were used, ensuring triangulation (Decrop, 2004; Bekhet & Zauszniewski, 2012; Denzin, 2012; Houghton et al, 2013). Considering that the multidimensional context of the tourism industry is better approached with the aid of triangulation, a group of two or three interviewers was always present during the data collection process and three different researchers were engaged in the transcription process. At least three different sources of data were used, namely, semi-structured interviews, theory based on a thorough literature review and organisational documents relevant to each actor and the ecosystem overall (either web-based or hard copies provided by the respondents themselves). Content analysis was then applied to extract the research findings.

5 FINDINGS

Given the qualitative nature of the study, in an effort to uncover tacit assumptions made by the researchers and in line with the work of Tufford and Newman (2010), the research team employed bracketing, starting from the level of conceptualisation and formulation of the research questions up to the phase of data collection, critical analysis and overall understanding. As a tool to rise the validity of the data analysed and distinguish the final outcome from subjective experiences and prior knowledge in the field of the tourism ecosystem and institutional theory, bracketing was performed with the use of memos including any identified presuppositions associated with the researchers' background (e.g. place of residence, professional as well as academic status), personal value systems and potential role conflicts (e.g. research collaboration based on previous student-instructor relationship) that might evoke feelings

characterised by a lack of neutrality. In this way, reactions from previous events and the current research were separated (Ahern, 1999), alleviating potentially detrimental impact of preconceptions that might distort the findings, which are briefly discussed below.

5.1. Ecosystem

As a concept, ecosystem was thoroughly described in the interviews, and was interpreted as a business and economic environment that entails part or the whole industry. During the interviews, actors were all perceived as parties, which have direct or indirect contact with tourists. Most of the actors (i.e. organisational entities represented by the interviewees) showed a good level of understanding of the different levels within the ecosystem, although they were not able to define them. Considering tourism ecosystem as a pyramid consisting of three levels (macro, meso, micro-level), all actors seemed to agree on the position of tourists, locals and employees (boundary-spanning) at the micro-level. Although they questioned the role of the Region of South Aegean being on the top of the pyramid, they unanimously concluded that hotels/restaurants/other businesses (directly/indirectly related to tourism) belong to the meso-level. Many respondents argued that, although the Region of South Aegean might be on top, in reality the hotels are the flagship business in the industry, which mainly drive the tourism growth. More specifically, central government and international bodies should appear at the macro level; in this case, regional and local authorities such as the Region of South Aegean and the Municipality of Rhodes may also belong to the meso-level. Respondents also referred to hotels, restaurants, cafés, tour operators (TOs), travel agencies (TAs), etc. as a balanced network of actors (Mansfield, 2017), including competing suppliers and companies with direct or indirect influence over the tourism ecosystem; they all rest in the middle (meso-level). Referring to the ecosystem, a 55-year-old Hotel Manager rhetorically asked: "Basically, we should ask ourselves... who is not part of the tourism ecosystem?". Although a single answer/definition was not given, all discussions unveiled the local community as the baseline (micro-level). All the actors interact with each other and with the tourists, co-creating value. For example, as a 53-year-old Hotel Manager mentioned: "There is a kind of cooperation between hotels and local authorities. Hotels act as a mediator between tourists and authorities and transfer complaints and requests".

Value co-creation

In the tourism ecosystem of Rhodes, when tourists receive high-value services, it is largely implied that they interact with the actors to accumulate high-value experiences and get, for example, high-quality service, and high-quality food and beverages. Nevertheless, the relationships between the actors in the tourism ecosystem on the island are characterised as superficial and typical. Respondents acknowledged that each tourist perceives differently the notion of high-value service, but the perception of value could be a differentiating factor (Almeyda-Ibáñez & George, 2017). It is thereby implied that different actors offer some sort of added value to the tourism value chain, contributing to the continuous improvement of destination image and the execution of various training

schemes (Region of South Aegean), the provision of high-quality accommodation services (Hotels), and high quality food and beverage services (Restaurants). As a 53-year-old Hotel Manager quoted: “[...] high value services is almost everything”. A 52-year-old counterpart (Hotel Manager) characteristically mentioned: “In hospitality services, along with the ‘hardware’ (infrastructure) there is also ‘heartware’ (to do it with all your heart)”. As a result, they all referred to the synergies fostered between operand and operant resources, leading to a value jointly created. “The local who will guide and assist the tourist in finding his/her way, co-creates value” as a highly ranked representative of the Region of South Aegean noted. Another Hotel Manager put it in a similar way, stating that: “The hotels are somewhere in the middle of the chain. They listen to the demands of the tourists, for example, more bus routes, and they convey them to the local authorities. That way, value is co-created”. As suggested by Akaka et al., (2013) the success of this interaction is guided by the congruence or difference between actors' shared institutions.

5.2. Institutions

All high value services are bound by norms and rules within the ecosystem. Based on the classification proposed by Baron and his colleagues (2018), norms, rules, practices, meanings and symbols emerged from the study as the main pillars of institutional logic, as shown below.

Norms

The attitudinal and behavioural aspect of shared actions and interactions within the ecosystem is dictated by norms (Vargo et al., 2015). Generally, they remain tacit and unspoken. People follow norms just because “one” “knows” that these norms are right (Steinhoff, 2009). In the tourism ecosystem of Rhodes, almost all of the actors identified the position of their organisation/business in the ecosystem (macro, meso, micro-level). At the macro-level the mission of the organisations is destination re-branding and crisis management, while the norms entail passion for work and honesty. At the meso-level, the mission of hospitality firms refers to the bottom line (based on the main purpose of their foundation and statute), the high-quality services (the suitable service product to address customer needs), and the mutual respect. Likewise, another Hotel Manager added: “the customer is very right, but not always”, emphasizing the need for a precise segmentation and targeting strategy (Kladou et al., 2014; Assiouras et al., 2015; Nella & Christou, 2016; Mavragani et al., 2019).

Rules

Rules are considered as either explicit or tacit regulations deeply embedded in the operational protocol. The difference from the norms is that sanctions may be imposed in case of violation (Edvardsson et al., 2014). Usually, rules are dictated by the most powerful actor(s) in the ecosystem (Baron et al., 2018). At the macro level of the tourism ecosystem in Rhodes, high-ranking tourism policy-makers admitted that they do not have the authority to set the rules or the sanctions, since regulation and penalties stem from the Central Government. While they are responsible to check the compliance with the rules, they are unable to conduct successful inspections, since they are understaffed. At the

meso-level, there are internal, operational rules, governing the operation of each business. They also apply to international quality assurance standards (e.g. ISO). In general, there are no direct sanctions, but there are consequences. In this context, a Restaurant Manager underlined that: “There are no direct penalties, but if we do not follow the rules, we will ‘lose’ customers or we will get lower ratings on the social media platforms”. Similarly, respondents from the hotel sector emphasised that any sanctions arise from the breach of the terms of the contracts with the Tour Operators.

Practices

Practices are the routine-based activities usually identified in organisations that encourage a smooth workflow. Given the diversity of organisations within the ecosystem in terms of sectors and layers (multilevel and multidimensional), these practices are naturally highlighted by multiple organisational logics (Baron et al., 2018). The way to avoid sanctions is to implement activities and practices that support high-value services. Every actor focused on the need and the importance of education and training addressed to each level and actor. At the macro-level, the practices mentioned include destination promotion, promotion of alternative forms of tourism, certification of agricultural products, support of agricultural production, management of European funds, etc. Their daily routine encompasses the facilitating and enhancement role in sustaining the relationship between local authorities and community. At the meso-level, the majority of the small-sized firms dictate that the actors are involved in almost every aspect and activity of the business e.g. safety and security, education, social media, operational activities and monitoring. Daily routines at this level refer to the progress and growth of business as well as the provision of high-value services.

Meanings

Resource integration between actors in the ecosystem fabricates the meaning attributed to their activities (Luca et al., 2016). The dynamic formation of ecosystems derives from the meanings (Akaka et al., 2013). For most actors, the meaning nests in the rationale to exceed tourists' expectations, to satisfy their needs (Fotiadis & Williams, 2018), to provide value-for-money services and standard high-value services. Another 55-year-old, highly experienced Hotel Manager said: “High-value services lie in the heart of hospitality”. At the end of the day, interviewees feel that there is some level of satisfaction with the services they currently provide. Most of them agreed that actors strive for high-value services in Rhodes, but they call for improvements.

Symbols

Symbols adjust and amplify the behaviours in the ecosystem also acting as underlying mechanisms for value co-creation (Flint, 2006; Vargo and Akaka, 2012; Akaka et al., 2014). Following Flint's rationale (2006), anything can be considered a symbol. In the tourism ecosystem of Rhodes, common values are shared among the actors and mainly originate from the sun, the sea, the smile, the spirit of philoxenia, the food, the legacy behind the name of Rhodes, the music and the folk dance etc. As a restaurant manager noticed: “It is all about ouzo, seafood tavern and nearby

islands". It was also argued that the geographic size of Rhodes Island does not leave much room to adopt only one symbol (i.e. diversity in the service offerings). The enthusiastic drivers operating in the ecosystem are generally identified through the simplicity in the service delivery, the 1960's mentality of hospitality, history and culture.

Table 2: Synthesis of the tourism ecosystem

Tourism Ecosystem			
	Micro-level	Meso-level	Macro-level
Levels (nested)	Tourists	Regional Authorities, RTO, LTO, Hotels, Restaurants, Cafés,	Central Government Authorities (Ministry of
	Local	TOs/TAs, Suppliers & other	Tourism, NTOs) and
	Community	firms related to tourism	other bodies and
	Employees	*directly/indirectly	organisations
			*national/international level
Institutions (institutional logic)	Norms	Tacit/unspoken behaviours and attitudes shared by all the actors (e.g. mission statements entailing passion for work and honesty, mutual respect and bottom line)	
	Rules	Laws, regulations at operational level (e.g. quality assurance standards, tourists' reviews, no sanctions from the RTO but penalties from the tour operators)	
	Practices	Activities and practices that support high-value services (e.g. safety and security, education, social media, promotional activity)	
	Meanings	How actors make sense of the value co-creation (e.g. exceed tourists' expectations, provide value-for-money services)	
	Symbols	Mechanisms for value co-creation (e.g. sun, sea, smile, spirit of philoxenia, gastronomy, music, folk dance and the legacy stemming from the destination brand)	

Overall, the research demonstrated that interactions do exist among the institutions, some of which might ask for a level of integration. More specifically, in some cases, rules are very limited and tend to be powered or even substituted by norms and meanings. For example, sanctions work in the very same way. They are intangible in nature, and are largely 'imposed' by the tourists, not from the authorities or the business operation manual. In the tourism ecosystem of Rhodes, it seems that practices have been the focal point of analysis and sight towards the provision of high-value services; thus, norms, rules, meanings and symbols follow this rationale to support the practices. Although the research findings are in line with Feldmann's work (2016: 68) denoting that "symbols unite people in a community in which differences are plenty", symbols do not constitute the glue that binds the ecosystem together. In fact, symbols do not work that way in the tourism ecosystem of Rhodes, but they follow practices. In general, the relationship among institutions is bidirectional and all institutions interact with each other. For example, it was implied that in case the mission of the Region of South Aegean changes, this might also affect other institutions, possibly altering the existing rules, symbols etc.

6 DISCUSSION

Drawing on recent theories and following current developments in the services marketing field (Edvardsson et al., 2014; Vargo & Lusch 2016, 2017), this is the first research attempt that elaborates on the notion and synthesis of the tourism ecosystem; based on empirical evidence, it provides further insight into its principal components. Therefore, the position of the key-actors is described and the way they intertwine in a multilevel framework (service

ecosystem). The analysis of the findings reveals basic institutional arrangements, which might otherwise be considered latent due to the significant overlaps and nested relationships within the ecosystem. Multiple arrangements are unveiled both within and between the levels of the ecosystem.

High-value services are generally conceived as high-quality offerings, where the visitor plays a significant role (i.e. value co-creation). As part of the tourism ecosystem in Rhodes, hotels, restaurants and the Region of South Aegean were put forward in the study. Although locals and central government bodies were not incorporated in the research design, their distinct role was highlighted in the interviews. For example, the way locals also treat tourists is deemed critical in order for the level of services to be maintained. Therefore, local community may also be an integral part of the micro-level of the tourism ecosystem.

Overwhelmed by the well-established administrative boundaries and hierarchies, the authors assumed that tourism authorities would be part of the macro-level. Yet, NTOs are part of the macro-level, whereas RTOs may be found at the meso-level. In fact, what differentiates some tourism organisations/authorities from others (e.g. NTOs and RTOs) may not be the administrative hierarchy but the essence of their perceived role in the ecosystem, as shown in the analysis of the institutions (e.g. RTOs may not impose sanctions, may focus on promotion-related activities while the legislative framework derives from the central government). Despite the fact that a higher-order effect on the tourism ecosystem might be assumed at the regional administrative level, the actors posit that hotels are the main focus of the ecosystem, driving the tourism development. Customers, with the aid of information and communications technology (Giannopoulos & Mavragani, 2011), may indirectly pose sanctions; as co-creators of value, they express their views on the social media (Revilla Hernández et al., 2016) and increase their power through social media ratings and actual performance.

Theoretical Implications

Based on the institutional theory, this is the first study to approach the tourism industry from an ecosystem perspective, explaining its different levels and showcasing that actions and interactions are nested in levels. The paradigm shift from viewing tourism as a fragmented industry (Leiper, 2008) to a service ecosystem has been empirically explored; the research goes one step forward to explain the close interdependence among firms and organisations directly or indirectly related to tourism at regional, national and international level. Similar to previous findings (Storbacka et al., 2016), the frame of reference is the value co-created with actors' engagement – including locals, tourists, employees and the upper layers of the tourism ecosystem (e.g. hospitality service providers and policy-makers). The findings highlight that the importance of the tourism value chain (various stakeholders in multiple layers) is well nested in the concept of value co-creation.

Contrary to previous studies (Feldmann, 2016), symbols are not perceived as the glue that binds different parties together in the specific tourism context. This may be interpreted by the limited gravity of symbols on the integration and texture of the tourism ecosystem, as expressed through the

interviews. Additionally, this role is partly substituted by the everyday practices. It is then assumed that symbols cannot be considered as regulators in the tourism ecosystem and only common tactical actions (i.e. practices) move the ecosystem forward; in a deeper investigation of the symbols-practices relationship, symbols appear to follow practices, not vice versa.

Practical Implications

A closer investigation of the interrelationships within the tourism ecosystem in Rhodes showed that they are largely described as lenient. Destination policy makers should seriously consider this finding, which might potentially threaten the nature of the ecosystem and the provision of high-value services over time. The Region of South Aegean and the Municipality of Rhodes actually constitute a significant part of the meso-level, whereas central government bodies (e.g. Ministry of Tourism, National Tourism Organisation etc.) pertain to the macro-level. All in all, the actors pinpoint that the lack of strategy at macro-level is rather crucial for the provision of high-value hospitality services. All parties may then reconsider their role in the service value chain and undertake actions to support the sustainability of the tourism ecosystem (interconnecting tourism with the primary sector of the economy e.g. farming). Education and training addressed to all the actors may act as a positive catalyst in this direction.

Focusing on resource integration, value co-creation may also encourage synergies to address global challenges posed by the external environment (e.g. natural disasters, terrorist attacks, pandemics). For instance, the high-tech momentum (AR, VR, geotagging etc.) can reinforce the development of user-generated content (Revilla Hernández et al., 2016) that in turn, may add value to the customer-firm relationship. Empowering dyadic interactions, the value co-created with the use of social media is another example of strengthening the visitor-destination links (Buhalis & Foerste, 2015).

7 CONCLUSIONS AND RECOMMENDATIONS

Considering the above, the study attempts to cast light on the new paradigm shift from multiple sectors composing the tourism industry to an inclusive ecosystem consisting of vital cells that support tourism activity. Tourism thereby operates as an ecosystem of actions and interactions between actors with different roles depending on the level and the underlying mechanisms (institutions).

However, these results pose new research challenges. In accordance with the current research stream (Edvardsson et al., 2014; Baron et al., 2018), value co-creation insights have to be further explored. To validate the findings from this qualitative study, a quantitative research would be more than welcome. Testing the degree of adoption of various institutions can unveil the full potential of the conceptual model presented in this paper i.e. how these mechanisms accelerate or delay, encourage or discourage, progress or hinder value co-creation at and between different levels.

Scrutinizing the constituent parts of the ecosystem, future studies should encompass the central government and local community perspectives in a broader framework. The framework would also be more complete by incorporating

international organisations (Sotiriadis & Shen, 2017) and national bodies (macro-level) as well as frontline employees (micro-level) in the research design. To deal with the role of technology, possible interlinkages between ICT and existing institutions may also be part of the analysis.

Last but not least, it is now more imperative than ever to replicate the findings in the COVID-19 era so as to demonstrate the very nature and the classification of the institutions reinforcing and/or weakening actors' roles in the tourism ecosystem. The identification of changes in the negotiating power of intermediaries (TAs) over service providers (e.g. hotels) possibly instigated by tourism authorities at the macro-level (e.g. new norms and rules) might be part of the outcomes of the anticipated study. In the same context, researching any other interconnections between sectors indirectly related to tourism (meso-level) would be deemed appropriate to explore mutual benefits from the application of international medical protocols in the tourism industry (i.e. healthcare sector imposing new rules to the tourism sector) and the capitalisation on the hotel companies' expertise from healthcare organisations/hospitals (i.e. new practices and meanings). Hence, this paper identifies the dynamics of the future research agenda and aims to contribute to the extant literature, through the consideration of tourism as an ever challenging and largely inclusive ecosystem.

ACKNOWLEDGEMENTS

The authors would like to express their gratitude to the Region of South Aegean for the practical support in the data collection process. They also wish to thank the Editor for his valuable feedback.

REFERENCES

- Ahern, K. J. (1999). Ten tips for reflexive bracketing. *Qualitative Health Research*, 9(3), 407-411.
- Akaka, M.A. & Chandler, J.D. (2011). Roles as resources: A social roles perspective of change in value networks. *Marketing Theory*, 11(3), pp. 243-260.
- Akaka, M.A., Corsaro, D., Kelleher, C., Maglio, P.P., Seo, Y., Lusch, R.F. & Vargo, S.L. (2014). The role of symbols in value co-creation. *Marketing Theory*, 14(3), pp. 311-326.
- Akaka, M. A. & Vargo, S.L. (2015). Extending the context of service: From encounters to ecosystems. *Journal of Services Marketing*, 29(6/7), pp. 453-462.
- Almeyda-Ibáñez, M. & George, B.P. (2017). The evolution of destination branding: A review of branding literature in tourism. *Journal of Tourism, Heritage & Services Marketing*, 3(1), 9-17.
- Arnould, E.J., Price, L.L. & Malshe, A. (2006). Toward a cultural resource-based theory of the customer (pp. 320-333). In R.F. Lusch & S.L. Vargo (Eds.) *The Service-Dominant Logic of Marketing: Dialog, Debate, and Directions*, Armonk, NY: M.E. Sharpe.
- Assiouras, I., Skourtis, G., Giannopoulos, A., Buhalis, D. & Koniordos, M. (2019). Value co-creation and customer citizenship behaviour. *Annals of Tourism Research*, 78, p. 102742.
- Assiouras, I., Skourtis, G., Koniordos, M. & Giannopoulos, A.A. (2015). Segmenting East Asian tourists to Greece by travel

- motivation. *Asia Pacific Journal of Tourism Research*, 20(12), 1389-1410.
- Barile, S., Lusch, R., Reynoso, J., Saviano, M. & Spohrer, J. (2016). Systems, networks, and ecosystems in service research. *Journal of Service Management*, 27(4), pp. 652-674.
- Barile, S., Vincenza, C.M., Troisi O. & Sarno, D. (2017). The role of technology and institutions in tourism service ecosystems: Findings from a case study. *The TQM Journal*, 29(6), pp. 811-833.
- Baron, St., Patersson, A., Maull, R. & Warnaby, G. (2018). Feed people first: A service ecosystem perspective on innovative food waste reduction. *Journal of Service Research*, 21(1), pp. 135-150.
- Bekhet, A. K. & Zauszniewski, J. A. (2012). Methodological triangulation: An approach to understanding data, *Nurse Researcher*, 20(2), pp. 40-43.
- Beirao, G., Patricio L. & Fisk R.P. (2016). Value cocreation in service ecosystems: Investigating health care at the micro, meso, and macro levels. *Journal of Service Management*, 28(2), pp. 227-249.
- Black, I. & Veloutsou, C. (2017). Working consumers: Co-creation of brand identity, consumer identity and brand community identity. *Journal of Business Research*, 70(1), pp. 416-429.
- Buhalis, D. & Foerste, M., (2015). SoCoMo marketing for travel and tourism: Empowering co-creation of value. *Journal of Destination Marketing & Management*, 4(3), pp. 151-161.
- Buhalis, D., Harwood, T., Bogicevic, V. Viglia, G., Beldona, S. & Hofacker, C. (2019). Technological disruptions in services: lessons from tourism and hospitality. *Journal of Service Management*, 30(4), pp. 484-506.
- Cabiddu Fr., Lui T. & Piccoli G. (2013). Managing value co-creation in the Tourism Industry. *Annals of Tourism Research*, 42, pp. 86-107.
- Castillo-Montoya, M. (2013). Preparing for Interview Research: The Interview Protocol Refinement Framework. *The Qualitative Report*, 21(5), pp. 811-831.
- Chan, C., Fung, Y.L. & Chien, W.T. (2013). Bracketing in phenomenology: only undertaken in the data collection and analysis process? *The Qualitative Report*, 18(59), pp. 1-9.
- Chandler, J. D. & Vargo, S. L. (2011). Contextualization and value-in-context: How context frames exchange. *Marketing Theory*, 11(1), pp. 35-49.
- Chatzigeorgiou, C. & Christou, E., (2016). Destination branding and visitor brand loyalty: Evidence from mature tourism destinations in Greece. *Tourismos*, 11(5), pp. 102-123.
- Chatzigeorgiou, C. & Christou, E. (2020). Adoption of social media as distribution channels in tourism marketing: A qualitative analysis of consumers' experiences. *Journal of Tourism, Heritage & Services Marketing*, 6(1), pp. 25-32.
- Dabholkar, P. (1990). How to improve perceived quality by improving customer participation (pp. 483-487). In B.J. Dunlap (Eds.) *Developments in Marketing Science*, Cullowhee, NC: Academy of Marketing Science.
- Decrop, A. (2004). Trustworthiness in qualitative tourism research. *Qualitative Research in Tourism: Ontologies, Epistemologies and Methodologies*, 2(3), pp. 156-169.
- Denzin, N. K. (2012). Triangulation 2.0. *Journal of Mixed Methods Research*, 6(2), pp. 80-88.
- Edvardsson, Bo, Kleinaltenkamp, M., Tronvoll, B., McHugh, P. & Windahl, C., (2014). Institutional logic matter when coordinating resource integration. *Marketing Theory*, 14(3), pp. 291-309.
- Edvardsson, B, Skalen, P. & Tronvoll, B. (2012). Service systems as a foundation for resource integration and value co-creation (pp. 79-126). In S.L. Vargo & R.F. Lusch (Eds.) *Towards a Better Understanding of the Role of Value in Markets and Marketing*, Emerald Group Publishing Limited.
- Edvardsson, B., Tronvoll, B. & Gruber, T. (2011). Expanding Understanding of science exchange and value co-creation: A social construction approach. *Journal of the Academy of Marketing Science*, 39(2), pp. 327-339.
- Feldmann, D. (2016). *Social Movements for Good: How Companies and Causes Create Viral Change*. Hoboken, New Jersey: Wiley.
- Fisk, R.P., Anderson, L., Bowen, D.E., Gruber, T., Ostrom, A.L., Patricio, L., Reynoso, J. & Sebastiani, R. (2016). Billions of impoverished people deserve to be better served: A call to action for the service research community. *Journal of Service Management*, 27(1), pp. 43-55.
- Flint, D.J. (2006). Innovation, symbolic interaction and customer valuing: thoughts stemming from a service-dominant logic of marketing. *Marketing Theory*, 6(3), pp. 349-362.
- Fotiadis, A. & Williams, R. B. (2018). "TiCoSa" a 3d matrix conceptual model to investigate visitors' perceptions in an athletic event. *Journal of Tourism, Heritage & Services Marketing*, 4(2), 32-36.
- Giannopoulos, A.A. & Mavragani, E.P. (2011). Traveling through the web: A first step toward a comparative analysis of European national tourism websites. *Journal of Hospitality Marketing & Management*, 20(7), 718-739.
- Giddens, A. (1984). *The Constitution of Society: Outline of the Theory of Structuration*. Berkley: University of California Press.
- Grissemann, U.S. & Stokburger-Sauer, N.E. (2012). Customer co-creation of travel services: The role of company support and customer satisfaction with the co-creation performance. *Tourism Management*, 33(6), pp. 1483-1492.
- Grönroos, C. (2006). Adopting a service-dominant logic for marketing. *Marketing Theory*, 6(3), pp. 317-333.
- Grönroos, C. (2008). Service logic revisited: Who creates value? And who co-creates? *European Business Review*, 20(4), pp. 298-314.
- Holbrook, M.B. (1996). Customer value: A framework for analysis and research (Vol. 23, pp. 138-142). In K. P. Corfman & J.G. Lynch, Jr (Eds.) *Advances in Consumer Research*, Provo, UT: Association for Customer Research.
- Holbrook, M.B. (2006). Rosepekiceciveci versus CCV: The resource-operant, skills exchanging, performance-experiencing, knowledge-informed, competence-enacting, C-producer-involved, value-emerging, customer-interactive view of marketing versus the concept of customer value: "I can get it for you wholesale". In R.F. Lusch and S.L. Vargo (Eds.), *The Service-Dominant Logic of Marketing: Dialog, Debate, and Directions* (pp. 196-207). Armonk, NY: M.E. Shape.
- Houghton, C., Casey, D., Shaw, D. & Murphy, K. (2013). Rigor in qualitative case study research. *Nurse Researcher*, 20(4), pp. 12-17.
- Kennedy, E. & Guzmán, F. (2017). When perceived ability to influence plays a role: brand co-creation in Web 2.0. *Journal of Product & Brand Management*, 26(4), pp. 342-350.
- Kladou, S., Giannopoulos, A.A. & Assiouras, I. (2014). Matching tourism type and destination image perceptions in a country context. *Journal of Place Management and Development*, 7(2), pp. 141-152.
- Leiper, N. (2008). Why 'the tourism industry' is misleading as a generic expression: The case for the plural variation, 'tourism industries'. *Tourism Management*, 29(2), pp. 237-251.
- Luca, N.R., Hibbert, S. & McDonald, R. (2016). Towards a service-dominant approach to social marketing. *Marketing Theory*, 16(2), pp. 194-218.
- Lusch, R.F. & Vargo, S.L. (2006). *The Service Dominant Logic of Marketing: Dialog, Debate and Directions*. Armonk, NY: M.E. Sharpe.

- Maglio, P.P. & Spohrer, J. (2008). Fundamentals of service science. *Journal of the Academy of Marketing Science*, 36(1), pp. 18-20.
- Mansfield, C. (2017). Travel writing in place branding: A case study on Nantes. *Journal of Tourism, Heritage & Services Marketing*, 3(2), pp. 1-7.
- Martinez, R.J. & Dacin, M.T. (1999). Efficiency motives and normative forces: Combining transactions costs and institutional logic. *Journal of Management*, 25(1), pp. 75-96.
- Mathis, E.F., Kim, H.L., Uysal, M., Sirgy, J.M. & Prebensen, N.K. (2016). The effect of co-creation experience on outcome variable. *Annals of Tourism Research*, 57, pp. 62-75.
- Mavragani, E., Nikolaidou, P. & Theodoraki, E. (2019). Traveler segmentation through Social Media for intercultural marketing purposes: The case of Halkidiki. *Journal of Tourism, Heritage & Services Marketing*, 5(1), pp. 15-23.
- McColl-Kennedy, J., Vargo, S., Dagger, T., Sweeney, J. & Kasteren, Y. (2012). Health care customer value co-creation practice styles. *Journal of Service Research*, 15(4), pp. 370-389.
- Nella, A. & Christou, E. (2016). Extending tourism marketing: Implications for targeting the senior tourists' segment. *Journal of Tourism, Heritage & Services Marketing*, 2(1), pp. 36-42.
- Neuhöfer, B., Buhalis, D. & Ladkin, A. (2015). Smart technologies for personalized experiences: A case study in the hospitality domain. *Electronic Markets*, 25(3), pp. 243-254.
- North, D.C. (1990). *Institutions, Institutional Change, and Economic Performance*. Cambridge University Press.
- North, D.C. (1993). Nobel Prize Lecture: Economic Performance through Time https://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/1993/north-lecture.html [Accessed the 28th of July 2018].
- Papatheodorou, A. & Arvanitis, P. (2014). Tourism and the economic crisis in Greece: Regional perspectives. *Région et Développement*, 39, pp. 183-203.
- Pappas, N.V. (2008). City of Rhodes: Residents' attitudes toward tourism impacts and development. *Anatolia*, 19(1), pp. 51-70.
- Prahalad, C.K. & Ramaswamy, V. (2004). Co-creation experiences: The next practice in value creation. *Journal of Interactive Marketing*, 18(3), pp. 5-14.
- Prebensen, N.K. & Foss, L. (2011). Coping and co-creating in tourist experiences. *International Journal of Tourism Research*, 13(1), pp. 54-67.
- Revilla Hernández, M., Santana Talavera, A. & Parra López, E. (2016). Effects of co-creation in a tourism destination brand image through twitter. *Journal of Tourism, Heritage & Services Marketing*, 2(2), pp. 3-10.
- Scott, W.R. (1987). The adolescence of institutional theory. *Administrative Science Quarterly*, 32(4), pp. 493-511.
- Scott, W.R. (2005). Institutional theory: contributing to a theoretical research program. In K.G. Smith, & M.A. Hitt (Eds.) *Great Minds in Management: The Process of Theory Development*, New York: Oxford University Press.
- Scott, W.R. (2008). *Institutions and Organizations: Ideas and Interests* (3rd ed.). Thousand Oaks, CA: Sage.
- Sfandla, C. & Björk, P. (2013). Tourism experience network: Co-creation of experiences in interactive processes. *International Journal of Tourism Research*, 15(5), pp. 495-506.
- Sigala, M. & Chalkiti, K. (2015). Knowledge management, social media and employee creativity. *International Journal of Hospitality Management*, 45, pp. 44-58.
- Simon, H.A. (1996). *The Sciences of the Artificial*. Cambridge: The MIT Press.
- Simmonds, H., Gazley, A. & Daellenbach, K. (2018). Theorising change and stability in service ecosystems: a morphogenetic approach. *The Service Industries Journal*, 38(3-4), pp. 250-263.
- Sotiriadis, M. & Shen, S. (2017). The contribution of partnership and branding to destination management in a globalized context: The case of the UNWTO Silk Road Programme. *Journal of Tourism, Heritage & Services Marketing*, 3(2), pp. 8-16.
- Steinbock, U. (2009). *The Philosophy of Jürgen Habermas: A Critical Introduction*. Oxford University Press.
- Tufford, L. & Newman, P. (2012). Bracketing in qualitative research. *Qualitative Social Work*, 11(1), 80-96.
- Van Riel, C. R. A. (2015). The Nordic perspective: Inspiring the future of service innovation (pp.199-201). In J. Gummerus, & C.V. Koskull (Eds.) *The Nordic School – Service Marketing and Management for the Future*, Helsinki, Finland: Hanken.
- Vargo, S.L. & Akaka, M.A. (2012). Value co-creation and service systems (re)formation: A service ecosystems view. *Service Science*, 4(3), pp. 207-217.
- Vargo, S. L. & Lusch, R. F. (2008). Service – dominant logic: Continuing the evolution. *Journal of the Academy of Marketing Science*, 36(1), pp. 1-10.
- Vargo, S.L. & Lusch, R.F. (2016). Institutions and axioms: An extension and update of service-dominant logic. *Journal of the Academy of Marketing Science*, 44(1), pp. 5-23.
- Vargo S.L. & Lusch, R.F. (2017). Service-dominant logic 2025. *International Journal of Research in Marketing*, 34(1), pp. 46-67.
- Vargo, S.L., Maglio, P.P. & Akaka, M.A. (2008). On value and value co-creation: A service systems and service logic perspective. *European Management Journal*, 26(3), pp. 145-152.
- Vargo, S.L. & Morgan, F.W., (2005). Services in society and academic thought: An historical analysis. *Journal of Macromarketing*, 25(1), pp. 42-53.
- Vargo, S.L., Wieland, H. & Akaka, M. (2015). Innovation through institutionalization: A service ecosystem perspective. *Industrial Marketing Management*, 44, pp. 63-72.
- Yilmaz, Ö.D. (2018). Revisiting employee-guest interactions in hotels: An analysis of critical incidents. *Journal of Tourism, Heritage & Services Marketing*, 4(2), 17-23.
- Williamson, O. (2000). The new institutional economics: Taking stock, looking ahead. *Journal of Economic Literature*, 38(3), pp. 595-613.
- Witell, L., Anderson, L., Brodie, R. J., Colurcio, M., Edvardsson, B., Kristensson, P. & Wallin Andreassen, T., (2015). Exploring dualities of service innovation: implications for service research. *Journal of Services Marketing*, 29(6/7), pp. 436-441.

SUBMITTED: DEC. 2019

REVISION SUBMITTED: FEB. 2020

ACCEPTED: APRIL 2020

REFEREED ANONYMOUSLY

PUBLISHED ONLINE: 30 MAY 2020